Amendments to the Claims

This listing of claims replaces all previous versions and listings of the claims.

Listing of Claims

Claims 1-30 (cancelled).

31. (new) A method comprising positioning a data transducer to write servo data to a recording surface using a positioning signal from a servo writer apparatus in combination with a readback signal transduced by the data transducer from previously written servo data on the recording surface.

32. (new) The method of claim 31, comprising a previous step of using the servo writer apparatus to position the data transducer to write the previously written servo data to the recording surface.

33. (new) The method of claim 31, wherein the servo data written using the positioning signal and the readback signal is characterized as second servo data written to a second portion of the recording surface, wherein the previously written servo data is characterized as first servo data written to a first portion of the recording surface, and wherein the first and second servo data are written by a write element of the data transducer which is separated from the read element a distance nominally equal to a distance between the first servo data and the second servo data.

34. (new) The method of claim 31, further comprising using the servo writer apparatus to bias the data transducer in a fixed position while writing the previously

written servo data using a write element of the data transducer, and incrementally advancing the data transducer until the read element is positioned over the previously written servo data to measure an offset distance between the read element and the write element.

35. (new) The method of claim 34, further comprising a step of dividing the offset distance into a plurality of track intervals, and wherein the positioning step further comprises writing the servo data in relation to said track intervals.

36. (new) The method of claim 31, wherein the positioning step further comprises determining a zero acceleration path (ZAP) from the transduced readback signal to account for mechanical disturbances during said positioning, and wherein the data transducer is positioned in relation to said determined ZAP.

37. (new) The method of claim 31, wherein the servo writer apparatus of the positioning step employs a push pin which advances the data transducer and a measurement system which measures a position of the push pin to derive positioning signal from the servo writer apparatus.

38. (new) The method of claim 31, wherein the servo data written during the positioning step comprises servo position dibit patterns which provides intra-track positioning data for an associated track on the recording surface.

39. (new) The method of claim 31, wherein the servo data written during the positioning step comprises track address data used to identify a particular track on the recording surface.

40. (new) The method of claim 31, wherein the data transducer and the recording surface of the positioning step are incorporated into a data storage device.

41. (new) An apparatus comprising a servo writer apparatus which positions a data transducer to write servo data to a recording surface using a positioning signal generated by the servo writer apparatus in combination with a readback signal transduced by the data transducer from previously written servo data on the recording surface.

42. (new) The apparatus of claim 41, wherein the servo writer apparatus previously positions the data transducer to write the previously written servo data to the recording surface.

43. (new) The apparatus of claim 41, wherein the servo data written using the positioning signal and the readback signal is characterized as second servo data written to a second portion of the recording surface, wherein the previously written servo data is characterized as first servo data written to a first portion of the recording surface, and wherein the first and second servo data are written by a write element of the data transducer which is separated from the read element a distance nominally equal to a distance between the first servo data and the second servo data.

44. (new) The apparatus of claim 41, where the servo writer apparatus biases the data transducer in a fixed position while writing the previously written servo data using a write element of the data transducer, and incrementally advances the data transducer until the read element is positioned over the previously written servo data to measure an offset distance between the read element and the write element.

45. (new) The apparatus of claim 44, wherein the servo writer apparatus divides the offset distance into a plurality of track intervals, and wherein the servo writer apparatus writes the servo data in relation to said track intervals.

46. (new) The apparatus of claim 41, further comprising control circuitry which determines a zero acceleration path (ZAP) from the transduced readback signal to account for mechanical disturbances during said writing, and wherein the data transducer is positioned in relation to said determined ZAP.

47. (new) The apparatus of claim 41, wherein the servo writer apparatus comprises a push pin which advances the data transducer and a measurement system which measures a position of the push pin to derive the generated positioning signal.

48. (new) The apparatus of claim 41, wherein the servo data written by the servo writer apparatus comprises servo positioning dibits which provides intra-track positioning data for an associated track on the recording surface.

49. (new) The apparatus of claim 41, wherein the servo data written by the servo writer apparatus comprises track address data used to identify a particular track on the recording surface.

50. (new) The apparatus of claim 41, wherein the data transducer and the recording surface of the positioning step are incorporated into a data storage device coupled to the servo writer apparatus.